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degree of particularity and distinctness. The requirement to "distinctly" claim means that the claim must have a meaning discernable to one of ordinary skill in the art and not be ambiguous. Only when a claim is insolubly ambiguous is it indefinite. *Metabolite Labs.*, *Inc. v. Lab. Corp. of Am. Holdings*, 71 USPQ2d 1081, 1089 (Fed. Cir. 2004).

The examiner's confusion over the recited third layer located on the second surface portion has apparently led to the conclusion that the claim has no discernable meaning. However, as shown in Figure 5 and as described in paragraph 62 of the application, the claims do have a discernable meaning. One of ordinary skill in the art could reasonably understand the claim to mean that the third layer is a coating that is located on the second surface portion. Thus, the claims have a discernable meaning and are not indefinite, and the rejection should be withdrawn.

Claims 1-14, 17, 18, 34, 36, 45, and 46 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kobayashi. The examiner maintains the rejection on the basis that the claimed features would have been an obvious matter of design choice. Whether one of ordinary skill in the art could rearrange the layers of the cited reference to meet the terms of the claim is not by itself sufficient to support obviousness. There must be a motivation to make the changes to the cited reference. See, MPEP 2144.04(VI)(C). Furthermore, the examiner has the burden of establishing motivation and there is no burden on the applicant to prove that the claimed structure is for any particular purpose as the examiner seems to suggest. For these reasons, the rejection is improper and should be withdrawn.

Claim 35 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kobayashi in view of Reisfeld. The rejection fails to state any motivation for making the proposed combination. The rejection states that "any known equivalent substrates for the photocatalytic fluid purification would be within the level of ordinary skill in the art," which does not amount to motivation. Thus, the burden remains with the examiner to establish proper motivation for supporting the rejection. For these reasons, the rejection is improper and should be withdrawn.

Claims 7-12, 20, 33, 37, 38, 43, and 44 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kobayashi in view of Reisfeld. The examiner maintains the rejection on the basis that it would have been an obvious matter of design choice to provide the claimed arrangement. However, the rearrangement of the layers of the cited reference to meet the terms of the claim is not by itself sufficient to support obviousness as explained above. There must be motivation to change

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the cited reference. Since the rejection fails to state any motivation for modifying the Kobayashi reference, the rejection is improper and must be withdrawn.

Claims 21-32, 39-42, and 47 were rejected under 35 U.S.C. §103(a) as being unpatentable over Reisfeld in view of Kobayashi. The examiner argues that it would have been obvious to modify Reisfeld with the compositions as shown in Kobayashi because "this would result in enhancing the photocatalytic fluid purification." However, the result that the claimed photocatalytic compositions would enhance photocatalytic fluid purification is only known through applicant's disclosure. Thus, the rejection fails to provide any motivation that would be known outside of applicant's disclosure for selecting the claimed photocatalytic compositions. For these reasons, the rejection fails to provide proper motivation and should be withdrawn.

Regarding claim 27, the examiner argues that Kobayashi discloses all of the layers and that through random rearrangement of the layers, one of ordinary skill in the art would be able to provide the claimed arrangement. As stated above, mere rearrangement without motivation is not sufficient to establish *prima facie* obviousness. For this reason, the rejection is improper and should be withdrawn.

Regarding claim 47, the examiner argues that the claimed features would have been an obvious matter of design choice since applicant has not disclosed that the claimed arrangement is for any particular purpose and that it also appears that Kobayashi's layers would perform equally well. However, there is no burden on applicant to prove that the claimed arrangement is for any particular purpose or to prove that the performance of the claimed layers is any different than the cited references. The examiner does have a burden of providing a motivation to modify Kobayashi to meet the limitations of claim 47, which is missing from the rejection. For this additional reason, the rejection of claim 47 is improper and should be withdrawn.

Claims 1-14, 17, 18, and 20-47 were provisionally rejected on the grounds of non-statutory obviousness-type double patenting over co-pending application 10/736,921. Since there are no allowed claims in either application, applicant cannot determine whether the obviousness-type double patenting is warranted and defers response until a later time.

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Applicant believes that no additional fees are necessary, however, the Commissioner is authorized to charge Deposit Account No. 03-0835 in the name of Carrier Corporation for any additional fees or credit the account for any overpayment.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United States patent and Trademark Office, fax number (571) 273-8300, on July 2007.

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